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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,916	03/10/2004	Rajan Bhandari	R. Bhandari 2-15-4 (LCNT/	3343
46363 7590 02/21/2008 PATTERSON & SHERIDAN, LLP/ LUCENT TECHNOLOGIES, INC 595 SHREWSBURY AVENUE SHREWSBURY, NJ 07702			EXAMINER LAM, HENRY S	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/797,916	Applicant(s) BHANDARI ET AL.	
	Examiner Henry Lam	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 15-20 is/are rejected.
- 7) ☒ Claim(s) 13 & 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/ are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by **Chen et al (US 2004/0228393 A1)**.

For claim 1, **Chen et al** disclose in a communications network, a method for combining data packets intended for a common communications device, comprising:

sorting data packets received during a predetermined time period into groups according to for which communications device of the network the received data packets are intended (para 0033 lines 1-8, group data packets received during a predetermined time period into groups according to for which communications device);

respectively time aligning the data packets in each of the groups (para 0034 lines 11-14, time aligning the data packets); and

orthogonally combining the sorted and time aligned data packets within each group (para 0006 lines 14 & 15, orthogonally combining the sorted and time aligned data packets).

Claim Rejections - 35 USC § 103

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor

and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2-3, 6-7, 10-11, and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Chen et al (US 2004/0228393 A1)** in view of **McNamara (US 6,262,976 B1)**.

For claim 2, **Chen et al** disclose all the subject matter of the claimed invention, except wherein the received data packets are sorted using a MAC header of each of the received data packets.

McNamara from the same or similar fields of the endeavor teaches wherein the received data packets are sorted using a MAC header of each

of the received data packets (column 55 lines 55-60, sorted using a MAC header).

Thus, it would have been obvious for the person of ordinary skill in the art at the time of the application using sorted using a MAC header by **McNamara** into the searching in a CDMA system of **Chen et al.**

The rationale for using a MAC header technique as taught by **McNamara** into the searching in a CDMA system of **Chen et al** being that it provides more flexible for searching and rearranged data packet in communications network.

For claim 3, **Chen et al** disclose all the subject matter of the claimed invention, except wherein the received data packets are stored in different sections of a memory according to for which communications device of the network the received data packets are intended.

McNamara from the same or similar fields of the endeavor teaches wherein the received data packets are stored in different sections of a memory according to for which communications device of the network the received data packets are intended (column 19, lines 3-10, stored in different section of a memory).

Thus, it would have been obvious for the person of ordinary skill in the art at the time of the application using the stored in different section of a memory by **McNamara** into the searching in a CDMA system of **Chen et al.**

The rationale for using the stored in different section of a memory as taught by **McNamara** into the searching in a CDMA system of **Chen et al** being that it provides more flexible for searching and better rearranged data packet in communications network.

For claim 6, **Chen et al** disclose all the subject matter of the claimed invention, except wherein the orthogonally combined data packets are transmitted to an intended receiver using a single MAC header.

McNamara from the same or similar fields of the endeavor teaches wherein the orthogonally combined data packets are transmitted to an intended receiver using a single MAC header (column 41, lines 13-17, transmitted to an intended receiver using a single MAC header).

Thus, it would have been obvious for the person of ordinary skill in the art at the time of the application using the technique of transmitted to an intended receiver using a single MAC header by **McNamara** into the searching in a CDMA system of **Chen et al**.

The rationale for using the technique of transmitted to an intended receiver using a single MAC header as taught by **McNamara** into the searching in a CDMA system of **Chen et al** being that it provides more flexible for searching and better rearranged data packet in transmit the communications network.

For claim 7, **Chen et al** disclose all the subject matter of the claimed invention, except wherein a respective bandwidth required to transmit each group of the orthogonally combined data packets is substantially the same as a bandwidth required to transmit a largest data packet in each of the groups.

McNamara from the same or similar fields of the endeavor teaches wherein a respective bandwidth required to transmit each group of the orthogonally combined data packets is substantially the same as a bandwidth required to transmit a largest data packet in each of the groups (column 30, lines 39-51, transmitted to an intended receiver using a single MAC header).

Thus, it would have been obvious for the person of ordinary skill in the art at the time of the application using the technique of transmitted to an intended receiver using a single MAC header by **McNamara** into the searching in a CDMA system of **Chen et al**.

The rationale for using the technique of transmitted to an intended receiver using a single MAC header as taught by **McNamara** into the searching in a CDMA system of **Chen et al** being that it provides more flexible for searching and better rearranged data packet in transmit the communications network.

For claim 10, **Chen et al** disclose all the subject matter of the claimed invention, except wherein only data packets having specific MAC headers are orthogonally combined.

McNamara from the same or similar fields of the endeavor teaches wherein only data packets having specific MAC headers are orthogonally combined (column 41 lines 13-17, specific MAC headers are orthogonally combined).

Thus, it would have been obvious for the person of ordinary skill in the art at the time of the application using the technique of specific MAC headers are orthogonally combined by **McNamara** into the searching in a CDMA system of **Chen et al**.

The rationale for using the technique of specific MAC headers are orthogonally combined as taught by **McNamara** into the searching in a CDMA system of **Chen et al** being that it provides more flexible for searching and better rearranged data packet in transmit the communications network.

For claim 11, **Chen et al** disclose all the subject matter of the claimed invention, except wherein data packets not orthogonally combined are communicated in the network according to conventional Ethernet protocols.

McNamara from the same or similar fields of the endeavor teach wherein data packets not orthogonally combined are communicated in the network

according to conventional Ethernet protocols (column 9 lines 54-58, data packets not orthogonally combined are communicated in the network according to conventional Ethernet protocols).

Thus, it would have been obvious for the person of ordinary skill in the art at the time of the application using the data packets not orthogonally combined are communicated in the network according to conventional Ethernet protocols by **McNamara** into the searching in a CDMA system of **Chen et al.**

The rationale for data packets not orthogonally combined are communicated in the network according to conventional Ethernet protocols as taught by **McNamara** into the searching in a CDMA system of **Chen et al** being that it provides better rearranged data packet in the communications network.

For claim 15, **Chen et al** all the subject matter of the claimed invention, except wherein the addressing device stores information regarding the MAC header of which data packets are to be orthogonally combined. **McNamara** from the same or similar fields of the endeavor teaches wherein the addressing device stores information regarding the MAC header of which data packets are to be orthogonally combined (column 41 lines 13-17, specific MAC headers are orthogonally combined).

Thus, it would have been obvious for the person of ordinary skill in the art at the time of the application using the technique of specific MAC headers

are orthogonally combined by **McNamara** into the searching in a CDMA system of **Chen et al.**

The rationale for using the technique of specific MAC headers are orthogonally combined as taught by **McNamara** into the searching in a CDMA system of **Chen et al** being that it provides more flexible for searching and better rearranged data packet in transmit the communications network.

For claim 16, **Chen et al** all the subject matter of the claimed invention, except further comprising a Receive MAC for receiving data packets and a Transmit MAC for transmitting the respective orthogonally combined data packets to an intended communications device.

McNamara from the same or similar fields of the endeavor teaches further comprising a Receive MAC for receiving data packets and a Transmit MAC for transmitting the respective orthogonally combined data packets to an intended communications device (column 30, lines 39-51, an intended receive and transmit using a single MAC header).

Thus, it would have been obvious for the person of ordinary skill in the art at the time of the application using the technique of an intended receive and transmit using a single MAC header by **McNamara** into the searching in a CDMA system of **Chen et al.**

The rationale for using the technique of an intended receive and transmit using a single MAC header as taught by **McNamara** into the searching in

a CDMA system of **Chen et al** being that it provides more flexible for searching and better rearranged data packet in transmit the communications network.

7. Claim 4-5, 8-9, 12, and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Chen et al (US 2004/0228393 A1)** in view of **Dapper et al (US 6,275,990 B1)**.

For claim 4, **Chen et al** disclose all the subject matter of the claimed invention, except further comprising sorting for transmission the orthogonally combined data packets in different sections of a memory according to for which communications device the combined data packets are intended.

Dapper et al from the same or similar fields of the endeavor teach further comprising sorting for transmission the orthogonally combined data packets in different sections of a memory according to for which communications device the combined data packets are intended (column 44, lines 36-40, orthogonally combined data packets in different sections of a memory).

Thus, it would have been obvious for the person of ordinary skill in the art at the time of the application using orthogonally combined data packets in different sections of a memory by **Dapper et al** into the searching in a CDMA system of **Chen et al**.

The rationale for using orthogonally combined data packets in different sections of a memory as taught by **Dapper et al** into the searching in a CDMA system of **Chen et al** being that it provides more flexible for searching and better rearranged data packet in communications network.

For claim 5, **Chen et al** disclose all the subject matter of the claimed invention, except wherein the orthogonally combined data packets are stored In different sections of a memory according to which communications device of the network The combined data packets are to be transmitted.

Dapper et al from the same or similar fields of the endeavor teach wherein the orthogonally combined data packets are stored In different sections of a memory according to which communications device of the network The combined data packets are to be transmitted (column 74, lines 14-33, orthogonally combined data packets in different sections of a memory to be transmitted).

Thus, it would have been obvious for the person of ordinary skill in the art at the time of the application using orthogonally combined data packets in different sections of a memory to be transmitted by **Dapper et al** into the searching in a CDMA system of **Chen et al**.

The rationale for using orthogonally combined data packets in different sections of a memory to be transmitted as taught by **Dapper et al** into the searching in a CDMA system of **Chen et al** being that it provides more

flexible for searching and better rearranged data packet for transmit in communications network.

For claim 8, **Chen et al** disclose all the subject matter of the claimed invention, except wherein the predetermined time period is substantially greater than or equal to a total time latency for receiving data packets intended for a common communications device of the network.

Dapper et al from the same or similar fields of the endeavor teach wherein the predetermined time period is substantially greater than or equal to a total time latency for receiving data packets intended for a common communications device of the network (column 96, lines 54-63, predetermined time period is greater than or equal to a total time latency for receiving data packets).

Thus, it would have been obvious for the person of ordinary skill in the art at the time of the application using predetermined time period is greater than or equal to a total time latency for receiving data packets by **Dapper et al** into the searching in a CDMA system of **Chen et al**.

The rationale for using predetermined time period is greater than or equal to a total time latency for receiving data packets as taught by **Dapper et al** into the searching in a CDMA system of **Chen et al** being that it provides more flexible arranged and better managed data packet for transmit in communications network.

For claim 9, **Chen et al** disclose all the subject matter of the claimed invention, except wherein data packets in the network are communicated according to a global timing schedule and the time latency is due to differences in the latencies of transmission media of the communications devices of the network.

Dapper et al from the same or similar fields of the endeavor teach wherein data packets in the network are communicated according to a global timing schedule and the time latency is due to differences in the latencies of transmission media of the communications devices of the network (column 96, lines 44-54, time latency is due to differences in latencies of transmission media).

Thus, it would have been obvious for the person of ordinary skill in the art at the time of the application using time latency is due to differences in latencies of transmission media by **Dapper et al** into the searching in a CDMA system of **Chen et al**.

The rationale for using time latency is due to differences in latencies of transmission media as taught by **Dapper et al** into the searching in a CDMA system of **Chen et al** being that it provides more flexible arranged and better managed data packet for transmit in communications network.

For claim 12, **Chen et al** disclose an apparatus for combining data packets intended for a common communications device in a communications network, comprising:

a timer for defining a time period for receiving data packets (fig 7 block 111); an addressing device for defining a storage location for the received data packets according to for which communications device of the network the received data packets are intended (fig 7 block 123), a memory for storing the received data packets in different sections according to the storage location defined by the addressing device, wherein the data packets stored within each of the different sections are respectively time aligned (fig 7 block 130) except a combiner for orthogonally combining the respective time aligned data packets in each of the different sections of the memory.

Dapper et al from the same or similar fields of the endeavor teach a combiner for orthogonally combining the respective time aligned data packets in each of the different sections of the memory (column 44, lines 36-40, orthogonally combined data packets in different sections of a memory).

Thus, it would have been obvious for the person of ordinary skill in the art at the time of the application using orthogonally combined data packets in different sections of a memory by **Dapper et al** into the searching in a CDMA system of **Chen et al**.

The rationale for using orthogonally combined data packets in different sections of a memory as taught by **Dapper et al** into the searching in a CDMA system of **Chen et al** being that it provides more flexible for searching and better rearranged data packet in communications network.

For claim 17, **Chen et al** disclose all the subject matter of the claimed invention, except wherein the apparatus is implemented in an interconnect switch of the network.

Dapper et al from the same or similar fields of the endeavor teach wherein the apparatus is implemented in an interconnect switch of the network (fig 96, network).

Thus, it would have been obvious for the person of ordinary skill in the art at the time of multi switches form a network by **Dapper et al** into the searching in a CDMA system of **Chen et al**.

The rationale for using multi switches form a network as taught by **Dapper et al** into the searching in a CDMA system of **Chen et al** being that it provides more flexible for searching and manage data packet in communications.

For claim 18, **Chen et al** disclose all the subject matter of the claimed invention, except wherein the apparatus is implemented in at least one of the communications devices of the network.

Dapper et al from the same or similar fields of the endeavor teach wherein the apparatus is implemented in at least one of the communications devices of the network (fig 96 block 32).

Thus, it would have been obvious for the person of ordinary skill in the art at the time of application using one of communications devices of the

network by **Dapper et al** for the searching in a CDMA system of **Chen et al**.

The rationale for using one of communications devices as taught by **Dapper et al** into the searching in a CDMA system of **Chen et al** being that it provides more flexible for searching and better arranged data packet in communications network.

For claim 19, **Chen et al** disclose a packet network where data packets intended for a common communications device are combined, comprising:
a plurality of communications devices; and

a switch for interconnecting the communications devices, wherein the interconnection switch includes:

a timer for defining a time period for receiving data packets (fig 7 block 111); an addressing device for defining a storage location for the received data packets according to for which communications device of the network the received data packets are intended (fig 7 block 123);

a memory for storing the received data packets in different sections according to the storage location defined by the addressing device, wherein the data packets stored within each of the different sections are respectively timed aligned (fig 7 block 130), except a combiner for orthogonally combining the respective time aligned data packets in each of the different sections of the memory.

Dapper et al from the same or similar fields of the endeavor teach a combiner for orthogonally combining the respective time aligned data packets in each of the different sections of the memory (column 44, lines 36-40, orthogonally combined data packets in different sections of a memory).

Thus, it would have been obvious for the person of ordinary skill in the art at the time of the application using orthogonally combined data packets in different sections of a memory by **Dapper et al** into the searching in a CDMA system of **Chen et al**.

The rationale for using orthogonally combined data packets in different sections of a memory as taught by **Dapper et al** into the searching in a CDMA system of **Chen et al** being that it provides more flexible for searching and better rearranged data packet in communications network.

For claim 20, **Chen et al** disclose A packet network where data packets intended for a common communications device are combined, comprising: a non-blocking switch for interconnecting communications devices of the network (para 0005 network connection in a WCDMA system); and a plurality of communications devices, wherein at least one of the communications devices (fig 7) includes:

a timer for defining a time period for receiving data packets (fig 7 block 111); an addressing device for defining a storage location for the received data packets according to for which communications device of the network

the received data packets are intended (fig 7 block 123);
a memory for storing the received data packets in different sections according to the storage location defined by the addressing device, wherein the data packets stored within each of the different sections are respectively timed aligned (fig 7 block 130), except a combiner for orthogonally combining the respective time aligned data packets in each of the different sections of the memory.

Dapper et al from the same or similar fields of the endeavor teach a combiner for orthogonally combining the respective time aligned data packets in each of the different sections of the memory (column 44, lines 36-40; orthogonally combined data packets in different sections of a memory).

Thus, it would have been obvious for the person of ordinary skill in the art at the time of the application using orthogonally combined data packets in different sections of a memory by **Dapper et al** into the searching in a CDMA system of **Chen et al**.

The rationale for using orthogonally combined data packets in different sections of a memory as taught by **Dapper et al** into the searching in a CDMA system of **Chen et al** being that it provides more flexible for searching and better rearranged data packet in communications network.

Allowable Subject Matter

8. Claims 13 & 14 are objected to as being dependent upon a rejected base claims, but would be allowable if written in dependent from including all of limitations of the base claim any intervening claims.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Rakib et al. (US 6,356,555 B1) and Trans et al. (US 2003/0016770 A1)
are all cited to show systems which are considered pertinent to the claimed invention.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Henry Lam whose telephone number is (571) 270-3122. The examiner can normally be reached on Monday to Friday 8:00AM to 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Q. Ngo can be reached on (571) 272-3139. The

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fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HL


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SUPERVISORY PATENT EXAMINER